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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,674	06/11/2001	Dean C. Miller	7784-000256	2024
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Harness, Dickey & Pierce, P.L.C. P. O. Box 828 Bloomfield Hills, MI 48303		EXAMINER LE, DANH C		
		ART UNIT PAPER NUMBER		
		2683		
		DATE MAILED: 12/15/2003		

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/878,674

Applicant(s)

MILLER ET AL.

Examiner

DANH C LE

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-11 and 15-20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zicker (US 5,995,833) in view of Moore (US 5,450,617).

As to claim 1, Zicker teaches a wireless local area network adapted for use by users traveling on a mobile platform (figure 2), the network comprising:

a network server (44) located on the mobile platform; and

a plurality of network access points (40, 52, 56) connected to the server, each access point accessible wirelessly by at least one user portable electronic device over one of a plurality of wireless channels (col.5, line 30-col.6, line 25).

Zicker fails to teach the wireless channel having non-overlapping frequency.

Moore teaches the wireless channel having non-overlapping frequency (col.5, lines 24-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Moore into the system of Zicker in order to use the dynamic allocation which avoid the interference.

As to claim 2, Zicker teaches the wireless local area network of claim 1 wherein the network access points are spaced apart within an interior area of the platform (figure 2, 40, 52, 56).

As to claim 3, Zicker teaches the wireless local area network of claim 1 wherein at least one of the access points is configured so that a line replaceable unit of an aircraft system and an antenna of the access point are separated by a distance at which a field strength of the antenna is less than interference thresholds of the line replaceable unit (col.5, line 30-col.6, line 25).

As to claim 4, Zicker teaches the wireless local area network of claim 1 wherein arch of the network access points comprises an antenna mounted in an overhead area of the mobile platform (figure 2, 40, 52, 56).

As to claim 5, Zicker teaches the wireless local area network of claim 1 wherein each of the network access points is configured to provide a wireless link only to portable electronics devices predetermined to meet predetermined standards for at least one of interference, health and safety (col.1, lines 47-67).

As to claim 6, Zicker teaches the wireless local area network of claim 5 wherein each of the network access points is further configured to ignore any portable electronic device not pre-determined to meet the predetermined standards (col.5, line 30-col.6, line 25).

As to claim 7, Zicker teaches the wireless local area network of claim 1 wherein each of the network access points is configured to transmit signals to and receive signals from a portable electronic device within a cell area, and is further configured to transmit signals to and receive signals from a portable electronic device that is roaming into the cell area from a cell area, associated with another of the access points (col.5, line 30-col.6, line 25).

As to claim 10, Zicker teaches wireless local area network of claim 1 wherein each of the access points comprises an antenna configured to communicate over a channel not being used by an adjacent access point antenna (col.5, line 30-col.6, line 25).

As to claim 11, Zicker teaches the wireless local area network of claim 9 wherein at least one of the channels is assigned to more than one of the access points (col.5, line 30-col.6, line 25).

As to claim 15, Zicker teaches the wireless local area network of claim 1 further comprising at least one antenna system configured to transmit to and receive data from a ground-based system (figure 2, 48).

As to claim 16, the claim is a method claim of claim 1; therefore, the claim is interpreted and rejected as set forth in the claim 1.

As to claim 17, the claim is a method claim of claim 5; therefore, the claim is interpreted and rejected as set forth in the claim 5.

As to claim 18, the claim is a method claim of claim 6; therefore, the claim is interpreted and rejected as set forth in the claim 6.

As to claim 19, the claim is a method claim of claim 7; therefore, the claim is interpreted and rejected as set forth in the claim 7.

As to claim 20, the claim is a method claim of claim 10; therefore, the claim is interpreted and rejected as set forth in the claim 10.

As to claim 21, Zicker and Mooore teaches further the non-overlapping channels comprise three channels (Moore, figure 2, 202 and plurality of channels 204).

As to claim 22, Zicker teaches the method of claim 16 wherein the step of distributing use of a plurality of channels comprises assigning a channel to more than one access point (figure 11, 1167, 1187).

2. Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Zicker and Moore in view of Wright (US 6,047,165).

As to claim 8, Zicker and Moore teaches the wireless local area network of claim 1 wherein each of the network access points is configured to transmit and receive signals using RF. The combine of Zicker and Moore fails to teach access points is configured to transmit and receive signals using a spread-spectrum modulation method.

Wright teaches access points is configured to transmit and receive signals using a spread-spectrum modulation method (col.13, lines 34-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Wright into the system of Zicker and Moore in order to resist to jamming and immunity to multi-path interference.

As to claim 9, the combine of Zicker, Moore and Wright teaches the wireless local area network of claim 8 wherein each of the network access points is configured to transmit and receive signals using direct sequence spread spectrum transmission (Wright, col.13, lines 34-55).

3. Claims 22, 23, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zicker (US 5,995,833) in view of Wright (US 6,047,165).

As to claim 23, Zicker teaches a wireless local area network configured to operate at a given spectrum band and adapted for use by users traveling on an aircraft (figure 11), the network comprising:

a network server located on the aircraft (1153); and

a plurality of network access points (1165, 1161) connected to the server and configured to transmit wirelessly to at least one user portable electronic device using RF.

Zicker fails to teach the connection using direct sequence spread spectrum transmission. Wright teaches the connection using direct sequence spread spectrum transmission (col.13, lines 34-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Wright into the system of Zicker and Moore in order to resist to jamming and immunity to multi-path interference.

As to claim 25, the combine of Zicker and Wright teaches the wireless local area network of claim 23 wherein more than one of the access points (Zicker, figure 2, 40, 52) is configured to transmit over the same channel of the network spectrum (Wright, col.13, lines 34-55 ).

4. Claims 12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zicker and Moore in view of Rautiola (US 5,924,030).

As to claims 12 and 24, Zicker and Moore teaches the wireless local area network of claim 1. Zicker and Moore fails to teach wherein each of the access points transmits at a radiated power between 1 and 5 milliwatts. Rautiola teaches the access

points transmits at a radiated power less than 1 millimeter (col.7, lines 17-39).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Rautiola into the system of Zicker and Moore in order to transmit a very low power.

5. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zicker and Moore in view of Wright (US 6,047,165).

As to claim 13 and 14, Zicker teaches the wireless local area network of claim 1. Zicker fails to teach wherein each of the access points communicates with the portable electronic devices at frequencies at and above about 2.40 GHz and between 2.40 and 2.483 GHz. Wright teaches each of the access points communicates with the portable electronic devices at frequencies at and above about 2.40 GHz (col.14, lines 32-40). Both Zicker and Wright fails to teach the frequencies is between 2.40 GHz-2.483 GHz, however, the engineer can design each of the access points communicates with the portable electronic devices at the frequencies between 2.40 GHz-2.483 GHz. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Wright and the frequencies between 2.40 GHz-2.483 GHz and into the system of Zicker and Moore in order to support a variety of different frequencies.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C LE whose telephone number is 703-306-0542. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



Danh C.Le



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